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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/701,822	02/26/2004	Dong Jae You	10125/4116	7312

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EXAMINER

SCHECHTER, ANDREW M

ART UNIT	PAPER NUMBER
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2871

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/701,822	Applicant(s) YOU ET AL.	
	Examiner ANDREW SCHECHTER	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-10,12-21,23-25,27-42 and 47 is/are pending in the application.
- 4a) Of the above claim(s) 7-10,14-21,29,30 and 34-42 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 13 is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,12,23-25,27,28,31-33 and 47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 19 February 2008 has been entered.

Response to Arguments

2. Applicant's arguments filed 19 February 2008 have been fully considered but they are not persuasive. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

The applicant argues [p. 8] that the amended limitation "integral" distinguishes the claimed invention from the device of *Mashino*. The examiner agrees, so the previous rejections in view of *Mashino* are withdrawn.

The applicant argues [pp. 9-10] that the previous rejections in view of *Jang* are inappropriate for a variety of reasons. This is not persuasive.

First, they argue that "a lot of assumptions" went into the reasoning that *Jang's* device has a "hardened" part. This is not persuasive; simply put, the structure shown in *Jang* appears to be identical to the structure shown in the applicant's Figs. 5 and 6, and

it is therefore reasonable to assume that it has properties [such as hardness] that are the same as or similar to that disclosed by the applicant's invention [see MPEP 2113-2114, for instance].

Second, they argue that *Jang* "discusses nothing of the bent portion" and "is directed entirely at preventing light from leaking into liquid crystal panel while simplifying manufacture processing. Col. 2, lines 24-32". This is not persuasive. The bent portion is shown in Fig. 4 and the overlap of the optical sheets with the metal reflecting plate [230] which causes the bend is discussed in col. 3, lines 52-60. Also, the passage cited by the applicant continues "[a]dditional advantages and features of the invention will be set forth in part in the description which follows and in part will become apparent ... upon examination of the following or may be learned from the practice of the invention. These and other advantages of the invention may be realized and attained by the structure particularly pointed out in the written description and claims hereof as well as the appended drawings" [col. 2, lines 33-40].

Third, they suggest that if it requires additional manufacturing steps, *Jang's* desire for fewer additional manufacturing steps should be considered a teaching away. This is not persuasive, as there is no explicit teaching away in *Jang* relating in any way to the bend, nor a difficult manufacturing process recited in the claims which might provoke such a teaching away.

Fourth, they suggest that the bent portion in *Jang* might have been formed in a mold, and therefore never have undergone the stress which could produce the recited hardening. This is not persuasive. First, it is contrived, as there is no mention of a mold

in *Jang* and no reason to think that *Jang* would go to the trouble of using a mold when the sheets would simply bend by themselves as the device is assembled. Second, the examiner notes that *Jang* has an overlapping inventorship with the present application, so the examiner suggests that if the device of *Jang* actually does use a mold and thereby actually does have a non-hardened bend, the applicants might simply testify to this in an affidavit in order to overcome the rejection.

The previous rejections in view of *Jang* are therefore maintained, modified as necessary due to the amendments to the claims.

The examiner notes that the device of *Jang*'s Fig. 4 closely resembles the device of the applicant's Figs. 5 and 6. However, the device of *Jang*'s Fig. 4 lacks the Ω -shaped portion shown in the applicant's Figs. 3, 4, and 10-13. This feature is recited in present claims as a "projecting part", which is "convex" or "towards the display", none of which is sufficient to patentably distinguish over the *Jang* device (or *Okuno* device) as discussed below; yet the feature is different from what is shown in *Jang* and *Okuno*, so there should be various ways to express this difference in the claim language.

Claim Objections

3. Claims 4 and 27 are objected to because of the following informalities: claims 4 and 27 should depend on claims 1 and 23, respectively. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 4, 12, 23-25, 31-33, and 47 are rejected under 35 U.S.C. 102(e) as being anticipated by *Jang et al.*, U.S. Patent No. 6,891,580.

[The applied reference has a common assignee and inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.]

Jang discloses [see Fig. 4, for instance] a display comprising a light source [220], a display panel [10], an optical sheet [260, 270, 280] through which light from the light source passes and having a region most proximate to the light source with a hardened part [see below].

Jang does not explicitly refer to the bent portion shown in Fig. 4 as a “hardened part”. However, it is bent which requires stress in the sheet, and according to the present specification [see paragraph 0072 of the specification, for instance], the stress involved in bending the sheets inherently causes part of it to be hardened [the amount of hardening will vary, presumably related to the amount of stress in bending]. Thus, the bent portion being “hardened”, to at least a certain extent, is inherent. The recited “hardened part” is considered to be the portion from near the bend to the nearest edge of the optical sheet. The hardened part has a longitudinal axis [along the line where the bend occurs] spaced a distance from a nearest edge of the optical sheet disposed parallel to the longitudinal axis. The hardened part comprises a projecting part [in that the bent portion projects at an angle to the plane of the sheet, or alternatively that there are prismatic protrusions that project from the optical sheet which is a prism sheet]. The hardened part is integral to the optical sheet, and the optical sheet comprises a non-display region in which the hardened part is formed [see Fig. 4]. Claim 1 is therefore anticipated.

Jang also discloses the analogous method of manufacturing this display including all the limitations recited in claim 23, so claim 23 is also anticipated.

There is a light guide panel [240] and the optical sheet comprises a diffusion sheet [260], so claims 2 and 25 are also anticipated. The display panel comprises a non-display region in which images are not displayed [outside the polarizer 290, above the metal reflecting plate 230, where the frame 30 blocks any light], and the hardened part [this “part” includes the bend and the angled portion] overlaps the non-display

region of the display panel, so claim 4 is also anticipated. The projecting part projects towards the display panel, so claim 12 is also anticipated. The method comprises forming the hardened part in the optical sheet, so claim 24 is also anticipated. The optical sheet contained the hardened part having a projecting portion that projects towards the display panel, so claim 31 is also anticipated. The method comprises forming the projecting portion in the optical sheet, so claim 32 is also anticipated. The projecting portion comprises a convex part [either near the bend, which is convex when viewed from above, or one of the prismatic projections of the prism sheet, which would be convex], so claim 33 is also anticipated. The hardened part is aligned in a direction of warping generated by the heat from the light source [parallel the edge of the light source, as discussed in a previous action under 35 USC 112], so claim 47 is also anticipated.

6. Claims 1, 2, 4-6, 12, 23-25, 27, 28, 31-33, and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by *Okuno*, US 2001/0006461.

Okuno discloses [see Figs. 11-14, for instance] a display comprising a light source [8]; a display panel [2] having a display region that provides images to an observer using light from the light source; and at least one optical sheet [5, 6, and/or 7] through which light from the light source passes and having a hardened part [see below], wherein the hardened part has a longitudinal axis [along the edge of 10 shown in Fig. 14] spaced a distance from a nearest edge of the optical sheet disposed parallel to the longitudinal axis [see Fig. 14], and comprising a projecting part [the part of the sheets bent upward in the figures, though one could also consider a protrusion such as

a prism from one of the sheets], wherein the hardened part is integral to the optical sheet and the optical sheet comprises a non-display region in which the hardened part is formed.

Okuno does not necessarily explicitly refer to the bent portion shown in Figs. 11-14 as a "hardened part". However, it is bent by thermal stress [see the discussion of Fig. 15, for instance], and according to the present specification [see paragraph 0072 of the specification, for instance], the stress involved in bending the sheets inherently causes part of it to be hardened [the amount of hardening will vary, presumably related to the amount of stress in bending]. Just as described in the present specification, the distortion caused by the bending is visible [paragraph 0019]. Thus, it is considered inherent that a "hardening" occurs in the optical sheets, and the portion from the edge of 10 to the edge of the optical sheet is considered by the examiner to be the recited "hardened part". The hardened part has a longitudinal axis [along the line at the edge of 10] spaced a distance from a nearest edge of the optical sheet disposed parallel to the longitudinal axis. The hardened part comprises a projecting part [in that the bent portion projects at an angle to the plane of the sheet (setting aside projections such as prismatic protrusions from the optical sheet(s))]. The hardened part is integral to the optical sheet, and the optical sheet comprises a non-display region in which the hardened part is formed [see Fig. 13]. Claim 1 is therefore anticipated.

Jang also discloses the analogous method of manufacturing this display including all the limitations recited in claim 23, so claim 23 is also anticipated.

There is a light guide panel [11] and the optical sheet comprises a diffusion sheet [5 or 7], so claims 2 and 25 are also anticipated. The display panel comprises a non-display region in which images are not displayed [where the frame 4 blocks any light], and the hardened part [this “part” includes the bend and the angled portion] overlaps the non-display region of the display panel, so claim 4 is also anticipated. The hardened part, as defined by the examiner, overlaps only the non-display region, so claims 5 and 27 are also anticipated. The hardened part is formed on at least opposing sides of the at least one optical sheets [see Fig. 11, showing that the bend will occur on both sides], so claims 6 and 28 are also anticipated. The projecting part projects towards the display panel, so claim 12 is also anticipated. The method comprises forming the hardened part in the optical sheet, so claim 24 is also anticipated. The optical sheet contained the hardened part having a projecting portion that projects towards the display panel, so claim 31 is also anticipated. The method comprises forming the projecting portion in the optical sheet, so claim 32 is also anticipated. The projecting portion comprises a convex part [near the bend, which is convex when viewed from above, setting aside the prismatic projections of a prism sheet, which would also be convex], so claim 33 is also anticipated. The hardened part is aligned in a direction of warping generated by the heat from the light source [parallel the edge of the light source, as discussed in a previous action under 35 USC 112], so claim 47 is also anticipated.

Allowable Subject Matter

7. Claim 13 is allowed.
8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose the device of claim 13, in particular the additional limitation that height of the projecting part is about 0.15 mm to about 0.2 mm. Claim 13 is therefore allowed.

Election/Restrictions

9. Claims 7-10, 14-21, 29, 30, and 34-42 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made without traverse in the reply filed on 3 January 2006.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Schechter whose telephone number is (571) 272-2302. The examiner can normally be reached on Monday - Friday, 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew Schechter/
Primary Examiner, Art Unit 2871
Technology Center 2800
27 April 2008